Gaps & Opportunities Under Wisconsin Law

A Conservation Report & Toolkit

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Groundwater Advisory Committee Presentation

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The Groundwater Advisory Committee's Statutory Charge Under 2003 Wisconsin Act 310

…. to provide the legislative environmental standing committees with recommendations for a mitigation program for GMAs, including Best Management Practices and water conservation measures.

Where Do We Go From Here – Task 2 (cont)

Task C: Identify and investigate potential management strategies which decrease groundwater usage, including but not limited to conservation, changes in water pricing, and water reuse. Identify advantages, disadvantages and implementation issues.

WATER CONSERVATION:
GAPS & OPPORTUNITIES UNDER WISCONSIN LAW

GAPS	OPPORTUNITIES
Absence of State Legislation Requiring Water Conservation	Amendment of Wisconsin Statute § 281.35 to Require Conservation Plans for All New or Increased Water Withdrawals in Excess of 100,000 Gallons Per Day
Regulatory Void Regarding Reclaimed Water	Bolstering Wellhead Protection Conservation Programs Groundwater Quantity Legislation's Directives for Groundwater Management Areas (GMAs) Annex 2001 Implementing Agreements' Conservation Requirements Conserve Wisconsin Initiative
Failure of State and Local Land Use Laws and Annexation Policies to Protect Regional Groundwater Supplies	Local Utilization of Smart Growth Planning and Funding to Prioritize Groundwater and Surface Water Conservation and Management
PSC's Declining Block Rate Structure "Opt Out" Potential	Water Conservation Pricing Regulatory or Statutory Preclusion of Opt Out
Lack of Local and Regional Cooperation Among Municipalities and Stakeholders	Development of a Regional Groundwater Management Plan as Binding Contract SEWRPC Reform and/or Expanded Regulatory Authority Groundwater Advisory Committee's Statutory Charge Under 2003 Wisconsin Act 310 to Develop a Coordinated Groundwater Management Strategy for GMAs

Gaps & Opportunities
Great Lakes Charter's Legacy in WI

- In 1985, the governors of the 8 Great Lakes States signed the Great Lakes Charter

- The statute directed the creation of a "water quantity resources plan" for the management of the waters of the state.

- In implementation of the Charter,Wisconsin created a statute governing water withdrawals (Section 281.35)

I. A Plan Created But No Implementation:

Although the Natural Resources Board fulfilled its statutory duty and created a conservation plan for the state, no headway has ever been made towards implementation of the plan.

***Lesson Learned*: State conservation planning requirements must be accompanied by implementation requirements.**

II. Strong Conservation Language But Impractical "Trigger":

Section 281.35 requires conservation for new or increased water withdrawals resulting in a "water loss" averaging more than 2 mgd in any 30 day period.

***Lesson Learned*: The statute's high threshold and water loss provisions fail to deter inefficient water waste on the part of most of the state's largest water users, thereby limiting the state's ability to prevent local water shortages from arising around the state.**

***** The 2mgd water loss threshold is set so high that, practically speaking, the majority of the state's water withdrawals are excluded from the statute's conservation requirements (only a small handful of water users triggered threshold over last 20 years).

* The statute's complicated water loss calculations (ie "consumptive use" calculation relying upon water loss coefficients) has resulted in a confusing and unnecessary regulatory process.

Opportunity: Wisconsin Statute 281.35

POLICY RECOMMENDATION:

- **Wisconsin Statute § 281.35 should be amended to change the two million gallon per day trigger to 100,000 gallons per day. This would require all entities seeking new or increased water withdrawals in excess of 100,000 gallons per day, regardless of water loss or consumptive water use, to have implemented conservation measures prior to approval of the proposed withdrawal. A bright line rule like this can be applied simply and uniformly.**

- **Whereas the current statute's conservation provisions fail to have an impact on the vast majority of new and increased water withdrawals occurring within the state, the recommended change will encourage local efficiencies, thereby preventing costly local water conflicts. Furthermore, not only is the 100,000 gallons per day threshold consistent with the high capacity well permit threshold under the Groundwater Quantity Act of 2004, but the proposed statutory amendment is consistent with the draft 2005 Annex Implementing Agreements and the goals of the Governor's Conserve Wisconsin Initiative.**

Gap:
Wellhead Protection Program

Under this state program, all communities installing a new municipal well after May 1, 1992 must complete a Wellhead Protection Plan comprised of 9 elements, including “development of a water conservation program.”

Yet, Program’s Conservation Component relegated to a mere paperwork requirement due to:

- No implementation requirements
- No monitoring/tracking by State
- No financial incentives

Opportunity: Wellhead Protection Program

POLICY RECOMMENDATION:

- Amend the Wellhead Protection Program law to set water conservation goals, to require implementation of water conservation programs, and to provide financial incentives comparable to the state's existing lake planning grant program.

Gap:
Groundwater Quantity Act

No conservation requirement for high capacity well permit holders

Opportunity: GWAC's Statutory Charge

POLICY RECOMMENDATION:

- The Groundwater Advisory Committee should draft and recommend the promulgation of regulations requiring conservation for high capacity well permit holders.
- The Groundwater Advisory Committee should recommend implementation of a conservation program to mitigate water problems in the GMAs.

Gaps & Opportunities: WI Land-Use Laws

POLICY RECOMMENDATION:

- Wisconsin land use laws and annexation policies need to be amended and/or enacted to proactively protect water supplies, including groundwater recharge zones, and to facilitate water supply planning at both the local and state level.

- Local communities need to ask regional planning commissions, UW extension representatives, and others involved in assisting local planning efforts to provide the hydrogeologic studies and technical assistance necessary to effectuate groundwater management planning and implementation.

- Local communities should utilize Smart Growth planning efforts and funding to produce comprehensive groundwater and related water resources management and land use plans.

Gap & Opportunity: Reclaimed Water

WI has no state regulations or guidelines addressing water re-use for purposes other than irrigation

POLICY RECOMMENDATION:

- **Wisconsin should commit to the development of an institutional and regulatory framework pertaining to the use of reclaimed water as an additional means of aquifer recharge and as an alternative non-potable water supply to decrease groundwater withdrawals.**

Utility Water Rate Structures

U.S. WATER UTILITY RATE STRUCTURES

RATE STRUCTURES	RATE FEATURE	CONSERVATION IMPACT
Flat Rate	Charges the user a fixed price regardless of the amount of water used.	Least effective in encouraging water usage reduction.
Uniform Rate	Charges the user the same unit rate for all water usage.	Minimally effective in encouraging water usage reduction.
Declining Block Rate	Charges the user less as usage increases.	Discourages efficient water use for large water users.
Increasing Block Rate	Charges the user more as usage increases.	Rewards efficient water usage.
Seasonal Block Rates Differentiated seasonal Summer seasonal	Charges users a higher rate for water used during the summer. Surcharge directed only to users whose peak season use exceeds average use during off-peak season.	Encourages water users to be efficient by reducing uses during peak season.

Opportunity: PSC Rate Structure Adjustment

POLICY RECOMMENDATION:

- The PSC should produce a uniform rule applying an increasing block rate across Wisconsin. An increasing block rate raises the price per unit of water as the amount of water consumption rises. Water use then could be accurately priced to motivate water conservation measures that limit consumption and promote water reuse.

Opportunity:

CASE STUDY: Mandatory Connection in the City of New Berlin, Wisconsin

The City of New Berlin's "mandatory connection" provision offers an instructive alternative to allowing large scale water users to opt out of a water utility. Under the City's Municipal Code, "the construction or deepening of private wells is prohibited on any premises to which municipal water service is available."[113] In other words, residents or owners of premises are required to connect to the municipal water system once available. Thus, New Berlin's industrial sector, upwards of 98% of whom are on the city's municipal water system, cannot opt out in the manner discussed above and must remain bound to the municipality's rates and conservation measures.[114]

Opportunity: Statutory or Regulatory Preclusion of "Opt Out"

POLICY RECOMMENDATION:

- **The PSC or the Groundwater Advisory Committee should offer statutory and regulatory recommendations to preclude large scale water users from opting out of available public water utility systems.**

- **Local governments should follow New Berlin's lead and pass mandatory connection provisions as part of their implementation of water conservation measures.**

Opportunity: Regional Cooperation

POLICY RECOMMENDATION:

- **Regional cooperation efforts should be supported and pursued at the state and local level to facilitate developing, implementing and monitoring a contractually-binding regional water resource plan, which can provide direction on issues ranging from land use to water rates to groundwater recharge protection.**

Opportunity: Creation of a Groundwater Management Plan

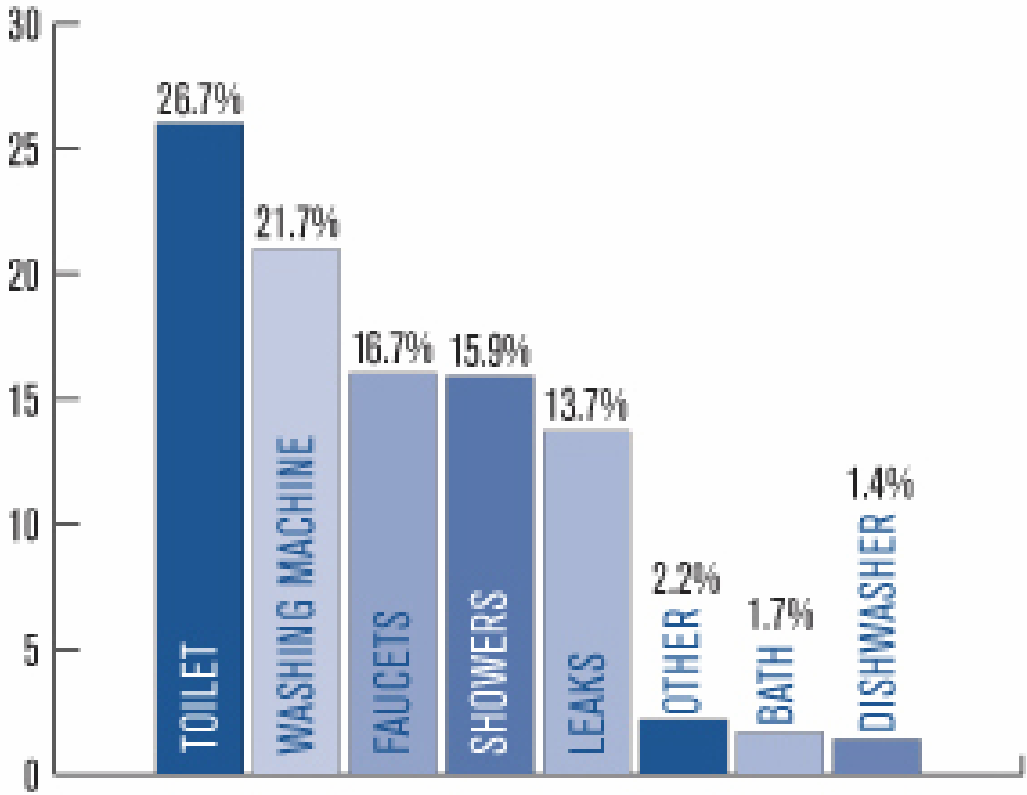
STEPS TO ADOPT A BINDING GROUNDWATER MANAGEMENT PLAN

Step One	Identify stakeholders with long-range interests in the ground and surface waters of an area
Step Two	Develop Comprehensive Groundwater Plan for Region through adherence to a planning process that is both transparent and open to public participation
Step Three	Review and Approval process by which stakeholders sign onto the groundwater plan in a contractual manner
Step Four	Design and implement a dispute resolution process
Step Five	Stakeholders stay the course using an adaptive approach and continued monitoring, reporting, and financial support.

Potential Management Strategies

EDUCATIONAL	FINANCIAL	REGULATORY
▪ School Curriculum ▪ Bill Inserts ▪ TV & Radio Ads ▪ Demonstrations ▪ Training Programs ▪ Conservation Checklists	▪ Rebates ▪ Conservation Rate Structures ▪ Incentive/Surcharge Fees ▪ Bill Credits ▪ Metering	▪ Water-Efficiency Ordinances ▪ Laws and Plumbing Codes for Water Efficient Fixtures/Appliances ▪ Landscape Standards ▪ Irrigation Scheduling ▪ Penalties for Outdoor Water Waste

TYPICAL INDOOR RESIDENTIAL WATER



A SAMPLE WISCONSIN CONSERVATION TOOLKIT

1. School and Public Information Programs
2. Residential Low-Flow Toilet and Appliance Replacement and Retrofitting programs and Incentives
3. Landscape Conservation Programs and Incentives for Residential and ICI Customers
4. ICI Customer On-Site Audit Programs and Informational Programs and Incentives
5. Implementation of Conservation Rate Structures
6. Promotion of Efficient Irrigation Practices and Technologies Among Residential, ICI and Agricultural Customers
7. Water Facility Leak Detection and Repair to Achieve Reductions in Unaccounted-for-flows
8. Land Use Planning Protective of Groundwater Resources
9. Developing Groundwater Recharge/ Infiltration Systems
10. Increased Use of Reclaimed Water in Lieu of Other Water Sources – Especially for Irrigation
11. Leading by Example: Water Efficient Technologies and Practices in Public Parks and Buildings
12. Reduction of Thermoelectric Water Use Through the Promotion of Water Efficient Technologies, Renewable Energy Systems and Energy Conservation

Water Rate Adjustment –The Wisconsin Public Service Corporation (PSC) should permit state utilities to adopt conservation water pricing for the Utility's service area.

Land Use Reform – communities should revise their planning and zoning ordinances to require that new developments have minimal impact on groundwater infiltration and seek the cooperation of neighboring municipalities in devising a proactive regional land use plan that limits future annexations and protects the region's aquifer recharge areas.

Water Re-use & Recycling – In place of the current practice of using water withdrawn from local groundwater supplies just once, treating it, and then discharging it beyond the watershed, communities should evaluate ways in which their wastewater can be utilized for industrial and agricultural uses or for groundwater recharge by such means as surface spreading or infiltration basins.

Public Discourse

•"Group Urges Statewide Water Conservation"

Daily Reporter

November 16, 2005

•***Wisconsin Public Radio***

November 17, 2005

•"Report Urges Consumers to Conserve Water"

Milwaukee Journal Sentinel

November 18, 2005

•"Group Urges Conservation as Water Decision Looms"

Waukesha Freeman

November 18, 2005

• ***Wisconsin Public Radio***

November 28, 2005

• ***Wisconsin Public Radio***

December 14, 2005